# Product Features: Compact Size 850+900+ Quad Band 1800+1900 GSM/GPRS Class 10 ARM-9 Processor SIM Holder Optional 2x UART Connectivity Integrated TCP/IP Stack Embedded Applications RoHS Compliant Fully Type CE/R&TTE/GCF Approved **Broad Spectrum: Emeraency** Services Fleet & Freight Healthcare Industrial Systems Information Display Metering Monitoring Power & Energy Security & Surveillance Traffic Control



# **GR64 GSM/GPRS**Radio Device



Universal Developer's Kit

# **Benefits**

- Functionality comparable to the GM47/GM48 and GR47/GR48
  Radio Devices for Legacy users
- Powerful and fast enabling complex and time critical applications
- Minimize total solution cost by embedding application directly onto GR64

Optimized for global M2M communications, the GR64 is a Quad Band GSM/GPRS Class 10 compact Radio Device. With functionality comparable to the Sony Ericsson GM47/GM48 and GR47/GR48 Radio Devices, the GR64 offers a broad range of voice and data features. Its intrinsic TCP/IP stack enables customers to make effective use of GPRS. The GR64 is configurable and possesses an extended range of input/output capabilities.

With its exceptionally powerful processor and enhanced memory, the GR64 is ideal for a broad spectrum of M2M applications including fleet and asset management, POS, vending, security, metering and other solutions.

Sony Ericsson's Universal Developer's Kit can be used with the GR64 to simplify application development. The kit provides everything required to design and develop innovative applications and to bring them to market in rapid time.

The GR64 is compliant with EU RoHS directives on the environment.



Vending & Retail

#### **Radio Features**

- Quad Band GSM/GPRS Radio Device
  - GSM 850/900MHz power class 4 (33dBm)
  - GSM 1800/1900MHz power class 1 (30dBm)
- Mobile class B
- Extended measurement reporting
- Compliant with 3GPP release 99 protocol stack
- · Battery charging support
- · Overall dimensions (excluding connectors):
  - 50 x 33 x 3.2mm
- Weight: 9g

#### **Environmental**

- Power supply: 3.2 4.5VDC
- Temperature range:
  - -30°C to +75°C (operational functionality)
  - -40°C to +85°C (storage temperature)

#### **Interfaces**

- · Dual microphone inputs and speaker outputs
- Up to 12 x programmable general purpose I/Os
- 4 x ADC inputs
- 1 x buzzer output
- Real time clock with alarm output
- 2 x UARTs
  - Serial baud rate from 1200 to 460,800 bits/s
  - Auto baud
  - Parity, data and stop bit programmable
- USB 2.0 full speed end point compliant (optional)
- MMCX RF connector
- 60-pin system connector as on GM47/GM48 and GR47/GR48
- Control by AT commands (GSM 27.005, 27.007 plus proprietary commands)

# **Data/GPRS Features**

- GPRS class 10
  - Multiple simultaneous PDP contexts
  - GPRS coding schemes CS1-CS4
- Transparent and non-transparent CSD up to 9.6kbps
- Modem type; V21, V22, V23, V22bis, V26ter, V32, V34, V24
- V42bis compression
- GSM supplementary services supported
- GSM 27.010 multiplexing protocol
- USSE

#### **Short Message Service (SMS) Features**

- Text and PDU
- Point to point (MT/MO)
- Cell broadcast

## **Voice Features**

- Telephony
- Emergency calls
- GSM vocoder support:
  - Full Rate, Enhanced Full Rate, Half Rate and Adaptive Multi Rate (FR/EFR/HR/AMR)
- Noise suppression and echo cancellation
- Sidetone/microphone amplification
- PCM audio
- · Five customizable profiles enabling tuning of the audio interface

### **Embedded Applications (Optional)**

- Embedded script interpreter
- Extensive API-library
- Multiple UART access
- Embedded application script downloads over the air using GPRS
- Our M2mpower software facilitates the development of cost effective wireless M2M applications

#### **Internet Protocols**

- TCP/UDP/IP protocol stack
  - Extensive AT command access to TCP/IP stack
  - Multi sockets (up to 15) through AT commands
  - Non blocking listening/server capability
  - IPv4 protocol
- Dynamic & static IP address allocation
- PPP protocol (PAP)

#### **Additional Features**

- SIM application toolkit class 2
- 1.8/3V SIM interface with SIM detection
- Optional SIM holder
- Dual SIM support with switching
- LED output
- Keypad matrix (4x4)
- · Optional integrated level shifters

# **Universal Developer's Kit**

 Our Universal Developer's Kit is available for rapid evaluation of products and applications on a limited scale

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